

Appl. No.: 09/440,102

Amdt. dated: October 8, 2003

Reply date: April 8, 2004

Amendments to the CLAIMS:

This listing of the claims will replace all previous listings of the claims.

In the Claims

1(Currently Amended). A projection display system, comprising:

- (a) a light source;
- (b) at least one polarizer for polarizing light from said light source;
- (c) at least one liquid crystal panel for generating an image, and which together with said polarizer, acts to polarize light from said light source generally into a uniaxial orientation;
- (d) a projection source for projecting said image; and
- (e) a polarization compensator having a plurality of light transmitting regions each having an incident face for receiving incident light and each having a respective birefringence, where said birefringence of each respective region is based on the variance of the polarization of said incident light on the incident face of said respective region from said uniaxial orientation, where said birefringence reduces said variance, and where said birefringence of at least one of said regions is different than said birefringence of another of said regions[.];
- (f) wherein said polarization compensator is located substantially coincident with where the angular distribution of the light is directly related to its physical location within said projection display system.

2(Original). The projection display of claim 1 wherein said regions are arranged in a rectangular matrix.

3(Original). The projection display of claim 1 wherein said regions are arranged concentrically.

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4(Original). The projection display of claim 1 having more than two regions.

5(Original). The projection display of claim 1 wherein said polarization compensator is a transmissive liquid crystal device.

6(Original). The projection display of claim 5 wherein at least one of said regions has a director orientation that is different than another director orientation of another of said regions.

7(Original). The projection display of claim 1, further comprising an analyzer, and said polarization compensator is located between said polarizer and said analyzer.

8(Original). The projection display of claim 1 wherein said polarization compensator is located at an aperture stop of said projection display.

9(Original). The projection display of claim 1 wherein said polarization compensator is built into said liquid crystal panel.

10(Original). The projection display of claim 1 wherein said polarization compensator is located at one of an entrance pupil and an exit pupil.

11(Original). The projection display of claim 1 wherein said polarization compensator is located adjacent to said liquid crystal panel.

12(Original). The projection display of claim 1 wherein each of said regions has electrically controlled birefringence.

13(Original). The projection display of claim 12, further comprising a feedback mechanism to adjust said birefringence of said regions.

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14(Original). The projection display of claim 12 wherein said birefringence of said regions is adjustable over time.

15(Original). The projection display of claim 1 wherein said birefringence of each of said regions is fixed.

16(Original). The projection display of claim 1, further comprising a plurality of liquid crystal panels.

17(Currently Amended). A method for displaying an image, comprising:

- (a) providing light generally polarized in a uniaxial orientation;
- (b) generating an image from said polarized light;
- (c) determining a variance, from said uniaxial orientation, of the polarization of light at a first location and a second location of said image, each of said locations being located in a plane that is substantially perpendicular to said light;
- (d) reducing said variance at said first and second locations where said reduction at said first location is different than said reduction at said second location; and
- (e) projecting said image[.];
- (f) wherein said variance is said reduced at a location substantially coincident with where the angular distribution of the light is directly related to its physical location.

18(Original).The method of claim 17 wherein said locations correspond to pixels.

19(Original). The method of claim 18 wherein said pixels are arranged in a rectangular matrix.

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20(Original). The method of claim 18 wherein said pixels are arranged concentrically.

21(Original). The method of claim 17 wherein said polarization defects are corrected at more than two locations.

22(Original). The method of claim 17 wherein said polarization defects are corrected using a transmissive liquid crystal device.

23(Original). The method of claim 22 wherein said transmissive liquid crystal device has at least one pixel having a director orientation that is different than another director orientation of another pixel.

24(Original). The method of claim 17, further comprising transmitting said light through an analyzer, and said polarization defects are corrected before said light is transmitted through said analyzer.

25(Original). The method of claim 17 wherein said polarization defects are corrected at an aperture stop.

26(Original). The method of claim 17 wherein said polarization defects are corrected at a liquid crystal panel.

27(Original). The method of claim 17 wherein said polarization defects are corrected at one of an entrance pupil and an exit pupil.

28(Original). The method of claim 17 wherein said polarization defects are corrected at a location adjacent to a liquid crystal panel.

29(Original). The method of claim 17 wherein said polarization defects are corrected

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by providing a polarization compensator having a plurality of pixels each having a respective birefringence, said birefringence of one of said pixels being different than said birefringence of another of said pixels.

30(Original). The method of claim 29, further comprising electronically controlling said birefringence of said pixels.

31(Original). The method of claim 17 further comprising the step of feeding back an output signal representative of said light in order to correct said polarization defects.

32(Original). The method of claim 17 wherein said polarization defects are corrected at different times.

33(Previously Amended). The method of claim 17 wherein the birefringence of each of said locations is fixed.